

REMARKS

By the present Amendment, Applicant amends claims 1 and 7 to more appropriately define the claimed subject matter. Claims 1, 2, 7, 9, 11, 13, and 15 remain pending in this application.

In the Final Office Action mailed August 9, 2007¹, the Examiner rejected claims 1, 2, 7, 9, 11, 13, and 15 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,994,762 to Suwanai et al. ("Suwanai") in view of Stanley Wolf et al., "Silicon Processing for the VLSI Era," 2000, Volume 1, Lattice Press, 719-727, 791-795 ("Wolf"), and further in view of U.S. Patent No. 6,770,977 to Kishida et al. ("Kishida"). Applicant respectfully traverses the rejection because the Examiner has not established that claims 6-9, 17, and 18 are obvious over the cited references.

The key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. Such an analysis should be made explicit and cannot be premised upon mere conclusory statements. See M.P.E.P. § 2142, 8th Ed., Rev. 6 (Sept. 2007). "A conclusion of obviousness requires that the reference(s) relied upon be enabling in that it put the public in possession of the claimed invention." M.P.E.P. § 2145. Furthermore, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" at the time the invention was made. M.P.E.P. § 2143.01(III), internal citation omitted. Moreover, "[i]n determining the differences between the prior art and

¹ The Final Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Final Office Action.

the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.” M.P.E.P. § 2141.02(I), internal citations omitted (emphasis in original).

It would not have been obvious for one of ordinary skill to combine the teachings of Suwanai, Wolf, and Kishida to obtain a semiconductor device comprising, *inter alia*, “a first insulating film formed above the semiconductor substrate and having a relative dielectric constant of 3.8 or less” and “a second insulating film covering the outer side face of the conductor and having a relative dielectric constant of over 3.8, at least a part of the second insulating film being formed at a same vertical position as the first insulating film.” Even the combination of teachings from Suwanai, Wolf, and Kishida that was previously suggested by the Examiner fails to include “a second insulating film covering the outer side face of the conductor . . . , at least a part of the second insulating film being formed at a same vertical position as the first insulating film,” as recited in claim 1 (emphasis added).

Fig. 11 of Suwanai, which was previously relied upon by the Examiner, shows a device including a wiring 18 formed within a first BPSG (boron-doped phospho silicate glass) film 17 and a silicon oxide film 27. See col. 7, line 66 to col. 8, line 4. Suwanai further shows a second BPSG film 20 formed above the wiring 18, first BPSG film 17 and the silicon oxide film 27. See col. 8, lines 25-27. The Examiner alleged that the first BPSG film 17 and the silicon oxide film 27 correspond to the claimed “first insulating film,” and that the second BPSG film 20 corresponds to the claimed “second insulating film.”

Even if the Examiner's allegations were correct, which Applicant does not concede, Suwanai nevertheless fails to teach or suggest "a second insulating film covering the outer side face of the conductor . . . , at least a part of the second insulating film being formed at a same vertical position as the first insulating film," as recited in claim 1 (emphasis added). The second BPSG film 20 of Suwanai is not "formed at a same vertical position as" the first BPSG film 17, as required by claim 1 (emphasis added). Instead, the second BPSG film 20 is formed above the first BPSG film 17 and the silicon oxide film 27. Thus, Suwanai does not teach or suggest "a second insulating film covering the outer side face of the conductor . . . , at least a part of the second insulating film being formed at a same vertical position as the first insulating film," as recited in claim 1.

Wolf does not make up for the deficiencies of Suwanai because Wolf also fails to teach or suggest "a second insulating film covering the outer side face of the conductor . . . , at least a part of the second insulating film being formed at a same vertical position as the first insulating film," as recited in claim 1 (emphasis added). The Examiner does not rely on Wolf for any teaching or suggestion of "a second insulating film . . . , at least a part of the second insulating film being formed at a same vertical position as the first insulating film," as required by claim 1.

Kishida fails to make up for the deficiencies of Suwanai and Wolf because Kishida also does not teach or suggest "a second insulating film covering the outer side face of the conductor . . . , at least a part of the second insulating film being formed at a same vertical position as the first insulating film," as recited in claim 1 (emphasis added). The Examiner does not rely on Kishida for any teaching or suggestion of "a

second insulating film . . . , at least a part of the second insulating film being formed at a same vertical position as the first insulating film," as required by claim 1.

The Examiner's proposed combination of Suwanai, Wolf, and Kishida fails to teach or suggest the semiconductor device recited in claim 1, and the Examiner has not identified any reason why one of ordinary skill would otherwise modify Suwanai, Wolf, and Kishida, either individually or in combination, to obtain the semiconductor device recited in claim 1. Thus, claim 1 and claims 2, 7, 9, 11, 13, and 15, which depend therefrom, are allowable over Suwanai, Wolf, and Kishida.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration of this application and the timely allowance of the pending claims.


Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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